

REINFORCEMENT ASSIGNMENT #10

INSTRUCTIONS

SUBJECT: RETURN OBJECT PROGRAMMING (ROP)

YOUR PAPER SHOULD INCLUDE, BUT IS NOT LIMITED TO:

Define return object programming.
Discuss how return object programming works.
How is return object programming used to insert malicious code or, take control of a computer?
Define stack overflow.
What is Data Execution Prevention (DEP)?
How does ROP circumvent DEP?
What is a ROP gadget?
What does it mean to manipulate the return pointer?
What is "stack smashing"?
What is a buffer overrun?
How is a buffer overrun attack done?
What is a "return to library" attack?
What is "address space layout randomization" (ASLR)?
How does ASLR prevent ROP attacks?
What is binary code randomization?
How does binary code randomization prevent ROP attacks?

REMEMBER:

You are graded on grammar, spelling and punctuation as well as your content.
There is a 1/2 point deduction for each error that your paper generates on www.languagetool.org
There is a 1/2 point deduction for not defining a term before using it.
There is a 1/2 point deduction for not defining an abbreviation properly.
Ex. All Abbreviations Must Be Defined (AAMBD)
There is a 1/2 point deduction for not defining an abbreviation before using it.
Wikipedia is not a citation. There is a 10 point deduction for citing Wikipedia.